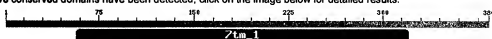


**BLAST Basic Local Alignment Search Tool**

Job Title: neuropeptide Y1 receptor

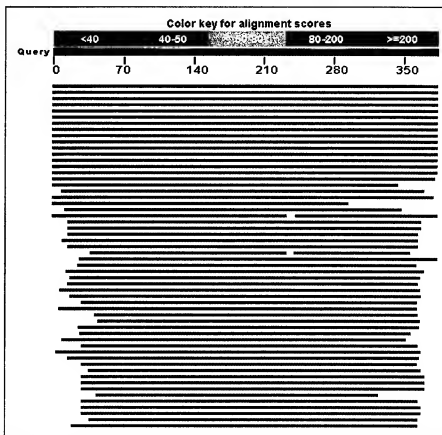
Show Conserved Domains

Putative conserved domains have been detected, click on the image below for detailed results.

**BLASTP 2.2.18 (Mar-02-2008)**

Reference: Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", *Nucleic Acids Res.* 25:3389-3402. Reference for compositional score matrix adjustment: Altschul, Stephen F., John C. Wootton, E. Michael Gertz, Richa Agarwala, Aleksandr Morgulis, Alejandro A. Schäffer, and Yi-Kuo Yu (2005) "Protein database searches using compositionally adjusted substitution matrices", *FEBS J.* 272:5101-5109. RID: 1A61CHC0016 Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples from WGS projects 6,470,629 sequences; 2,208,486,882 total letters

Query= Length=384

**Distribution of 100 Blast Hits on the Query Sequence**

Distance tree of results **NEW**

Sequences producing significant alignments:		Score (Bits)	E Value	
ref NP_000000.1	neuropeptide Y receptor Y1 [Homo sapiens] >...	750	0.0	<b>UG</b>
gb AA29893.1	neuropeptide Y receptor Y1 [synthetic construct]	741	0.0	
gb AA59520.1	neuropeptide Y receptor	740	0.0	<b>G</b>
ref XP_00148035.1	PREDICTED: similar to neuropeptide Y rece...	735	0.0	<b>UG</b>
ref NP_001028038.1	neuropeptide Y receptor Y1 [Macaca mulatt...	734	0.0	<b>UG</b>
ref XP_001500038.1	PREDICTED: similar to neuropeptide Y rece...	731	0.0	<b>UG</b>
gb AA013776.2	neuropeptide Y1 receptor [Sus scrofa]	729	0.0	<b>G</b>
ref NP_001039363.1	neuropeptide Y receptor Y1 [Bos taurus] >...	725	0.0	<b>UG</b>
ref NP_001002930.1	neuropeptide Y receptor Y1 [Canis lupus f...	724	0.0	<b>UG</b>
ref NP_399453.1	neuropeptide Y receptor Y1 [Sus scrofa] >sp...	724	0.0	<b>UG</b>
ref XP_001508180.1	PREDICTED: similar to Lipopolysaccharide-...	724	0.0	<b>UG</b>
ref NP_035064.1	neuropeptide Y receptor Y1 [Mus musculus] >...	721	0.0	<b>UG</b>
sp Q9MVD0 NPY1R_CAVPO	Neuropeptide Y receptor type 1 (NPY1-R)...	719	0.0	
sp P21555 NPY1R_RAT	Neuropeptide Y receptor type 1 (NPY1-R) (...)	719	0.0	<b>G</b>
ref NP_00106628.1	neuropeptide Y receptor Y1 [Rattus norveg...	718	0.0	<b>UG</b>
ref NP_001026706.1	neuropeptide Y receptor Y1 [Gallus gallus...	684	0.0	<b>UG</b>
ref P11617 ISA	G protein coupled receptor	668	0.0	
ref NP_001077948.1	neuropeptide Y receptor Y1, NPY/PYY recep...	608	2e-172	<b>UG</b>
ref XP_001374274.1	PREDICTED: hypothetical protein [Monodelp...	579	1e-163	<b>UG</b>
dbj BA09689.1	neuropeptide Y-Yibeta receptor [Mus musculus]	571	3e-161	<b>G</b>
gb AA062565.1	NPY receptor Y1 [Squalus acanthias]	496	1e-135	
dbj BA092474.1	neuropeptide Y receptor Y1 variant [Homo sapi...	481	5e-134	<b>G</b>
ref XP_681386.2	PREDICTED: similar to neuropeptide Y recepto...	457	6e-127	<b>UG</b>
ref NP_001095861.1	Npylr protein [Danio rerio] >ref XP_00133...	457	9e-127	<b>G</b>
gb AB194073.1	neuropeptide Y receptor Y6 [Latimeria chalumnae]	453	1e-125	
gb AA062564.1	NPY receptor Y6 [Squalus acanthias]	449	1e-124	
ref NP_001038152.1	NPY receptor Y6 [Gallus gallus] >gb ABA86...	422	2e-116	<b>UG</b>
dbj BA073048.1	hypothetical protein [Macaca fascicularis]	402	3e-110	
ref NP_571511.1	neuropeptide Y receptor Y8b [Danio rerio] >g...	383	1e-104	<b>UG</b>
gb AA062833.1	neuropeptide Y/peptide YY receptor Yb [Gadus m...	374	8e-102	
ref XP_001367987.1	PREDICTED: similar to neuropeptide Y rece...	372	2e-101	<b>UG</b>
ref NP_001076242.1	neuropeptide Y/peptide YY Y6 receptor [Or...	371	4e-101	<b>UG</b>
gb AA064410.1	NPY receptor [Lampetra fluviatilis]	371	5e-101	
ref NP_035065.1	neuropeptide Y receptor Y6 [Mus musculus] >...	369	2e-100	<b>UG</b>
ref XP_001514768.1	PREDICTED: similar to neuropeptide Y rece...	366	3e-100	<b>UG</b>
ref NP_001098074.1	neuropeptide Y/peptide YY receptor Npy8br...	367	8e-100	<b>UG</b>
ref NP_001098075.1	neuropeptide Y/peptide YY receptor Npy4r ...	366	2e-99	<b>UG</b>
ref NP_001026726.1	pancreatic polypeptide receptor 1 [Gallus...	359	2e-97	<b>UG</b>
ref XP_001502701.1	PREDICTED: similar to neuropeptide Y rece...	356	1e-96	<b>UG</b>
ref NP_001106592.1	hypothetical protein LOC100127810 [Xenopus]	351	5e-95	<b>UG</b>
ref NP_001098073.1	neuropeptide Y/peptide YY receptor [Takif...	350	1e-94	<b>UG</b>
gb AA076328.1	neuropeptide Y receptor Y6 [Pecari tajacu]	348	4e-94	
gb AA062563.1	NPY receptor Y4 [Squalus acanthias]	347	1e-93	
ref XP_001519501.1	PREDICTED: similar to neuropeptide Y rece...	346	2e-93	<b>UG</b>
ref NP_571512.1	neuropeptide Y receptor Y8a [Danio rerio] >g...	343	9e-93	<b>UG</b>
emb CA005258.1	unnamed protein product [Tetraodon nigroviridis]	342	4e-92	
ref XP_001371780.1	PREDICTED: similar to neuropeptide Y rece...	336	2e-90	<b>UG</b>
sp Q61041 INPY4R_MOUSE	Neuropeptide Y receptor type 4 (NPY4-R)...	336	2e-90	<b>G</b>
ref NP_032945.3	pancreatic polypeptide receptor 1 [Mus muscu...	335	3e-90	<b>UG</b>
dbj PAC29082.1	unnamed protein product [Mus musculus]	335	4e-90	<b>G</b>
emb CA005410.1	unnamed protein product [Tetraodon nigroviridis]	328	4e-90	
ref XP_346199.1	PREDICTED: similar to Neuropeptide Y recepto...	334	8e-90	<b>UG</b>
ref NP_115769.1	pancreatic polypeptide receptor 1 [Rattus no...	332	2e-89	<b>UG</b>
sp Q63447 NPY4R_PAT	Neuropeptide Y receptor type 4 (NPY4-R) (...)	332	2e-89	<b>G</b>
ref NP_571515.1	neuropeptide Y receptor Y4 [Danio rerio] >gb...	331	5e-89	<b>UG</b>
ref XP_582253.1	PREDICTED: similar to neuropeptide Y recepto...	328	3e-88	<b>UG</b>
gb AA013144.1	pancreatic polypeptide receptor Y4 [Cavia porc...	328	3e-88	
ref XP_001500793.1	PREDICTED: similar to neuropeptide Y rece...	328	5e-88	<b>UG</b>

ref NP_009404.1	pancreatic polypeptide receptor 1 [Sus scrofa]	326	5e-88	UG
gb AAH59617.1	Pancreatic polypeptide receptor 1 [Homo sapiens]	317	7e-95	G
ref XP_001083057.1	PREDICTED: pancreatic polypeptide recepto...	315	4e-84	UG
gb AAH26349.1	neuropeptide Y receptor 4 [Macaca mulatta]	314	6e-84	
ref NP_005963.3	pancreatic polypeptide receptor 1 [Homo sapiens]	310	1e-82	UG
gb AAH97758.1	pancreatic polypeptide receptor >gb AAV68196.1...	310	1e-82	G
emb CA647648.1	PPYR1 [Homo sapiens]	306	1e-81	G
gb AAH95044.1	gastric Y1 receptor [Oryctolagus cuniculus]	300	1e-79	G
gb AAH89881.1	Neuropeptide Y receptor Y1 [Rattus norvegicus]	276	3e-73	G
ref XP_001156961.1	PREDICTED: pancreatic polypeptide recepto...	376	2e-72	UG
emb CA609405.1	unnamed protein product [Tetrardodon nigroviridis]	375	4e-72	
gb AB885151.1	Npylr protein [Acipenser baerii]	261	7e-66	
dbj BAAL3103.1	Y5 encoding protein [Homo sapiens] >gb EAW621...	260	1e-67	G
gb AB885170.1	Npy6r protein [Polypterus senegalus]	260	1e-67	
gb AAH19187.1	truncated pancreatic polypeptide receptor PF2	258	6e-67	
sp Q23602 NPY1R_SHEEP	Neuropeptide Y receptor type 1 (NPY1-R) ...	240	1e-61	
gb AAH98846.1	gastric Y4 receptor [Oryctolagus cuniculus]	225	4e-57	G
gb AB889168.1	Npy4r protein [Polypterus senegalus]	220	1e-55	
gb AB89163.1	Npy6r protein [Lepisosteus osseus]	220	1e-55	
gb AB889153.1	Npy4r protein [Acipenser baerii]	211	6e-53	
gb AB889152.1	Npylr protein [Acipenser baerii]	191	9e-47	
gb AB8854774.1	neuropeptide Y receptor Y7 [Oncorhynchus mykiss]	189	3e-46	
gb AB889173.1	Npylr protein [Anguilla anguilla]	183	2e-44	
ref NP_001032913.1	neuropeptide Y7 receptor [Gallus gallus] ...	182	5e-44	UG
gb AB889172.1	Npylr protein [Anguilla anguilla]	180	2e-43	
ref XP_326025.2	PREDICTED: similar to Leucokinin receptor CG...	179	2e-43	UG
ref NE_001372759.1	PREDICTED: similar to neuropeptide Y rece...	179	3e-43	UG
ref XP_00106312.1	neuropeptide Y receptor type 2 [Culex pip...	170	4e-43	UG
ref XP_001617159.1	PREDICTED: similar to neuropeptide Y7 rec...	178	6e-43	UG
ref NP_001007219.1	neuropeptide Y receptor Y7 [Danio rerio] ...	177	1e-42	UG
dbj BAD6818.1	receptor for gonadotropin-inhibitory hormone ...	176	2e-42	
ref NP_647069.3	Leucokinin receptor CG10626-PA [Drosophila m...]	176	2e-42	UG
ref XP_001601372.1	PREDICTED: similar to ENSANGP00000011806 ...	176	4e-42	G
gb BAE17050.1	RFamide-related peptide receptor [Gallus gallus]	175	6e-42	
gb AB889156.1	Npylr protein [Amia calva]	175	6e-42	
ref NP_989693.1	neuropeptide FF receptor 1 [Gallus gallus] >...	174	8e-42	UG
gb AAH57211.1	putative neuropeptide receptor [Schistosoma ma...]	174	9e-42	
ref XP_320289.1	putative neuropeptide Y receptor 3 (AGAP0123...	174	1e-41	UG
ref XP_001862450.1	myokinin receptor [Culex pipiens quinquef...]	173	2e-41	UG
ref XE_608034.3	PREDICTED: similar to G-protein-coupled rece...	173	2e-41	UG
gb ABD96049.1	short neuropeptide F receptor [Anopheles gambiae]	173	2e-41	
ref XP_966882.1	PREDICTED: similar to F41E7.3 [Tribolium cas...]	172	5e-41	UG

## Alignments

```

>ref|NP_000900.1| UG neuropeptide Y receptor Y1 [Homo sapiens]
sp|P25929|NPY1R_HUMAN G Neuropeptide Y receptor type 1 (NPY1-R)
gb|AAH73215.1| G [Human neuropeptide Y peptide YY receptor mRNA, complete cds.],
gene product
gb|AAH59947.1| G neuropeptide Y receptor Y1
gb|AAH36657.1| G Neuropeptide Y receptor Y1 [Homo sapiens]
gb|AAH55647.1| G neuropeptide Y1 receptor [Homo sapiens]
gb|AAH71720.1| G Neuropeptide Y receptor Y1 [Homo sapiens]
gb|EAX04841.1| G neuropeptide Y receptor Y1 [Homo sapiens]
gb|ABM82191.1| G neuropeptide Y receptor Y1 [synthetic construct]
gb|ABM85379.1| G neuropeptide Y receptor Y1 [synthetic construct]
length=384

```

GENE ID: 4886 NPY1R | neuropeptide Y receptor Y1 [Homo sapiens]  
(Over 10 PubMed links)

Score = 792 bits (2045), Expect = 0.0, Method: Compositional matrix adjust.  
Identities = 384/384 (100%), Positives = 384/384 (100%), Gaps = 0/384 (0%)

```

Query 1 MNSTLFSQVHNHSHVSNFSEKNAQLAFENDDCHLPLAMIFTTALAYGAVIILGVSGNIA 60
        MNSTLFSQVHNHSHVSNFSEKNAQLAFENDDCHLPLAMIFTTALAYGAVIILGVSGNIA
Sbjct 1 MNSTLFSQVHNHSHVSNFSEKNAQLAFENDDCHLPLAMIFTTALAYGAVIILGVSGNIA 60

```



## Conserved Domains

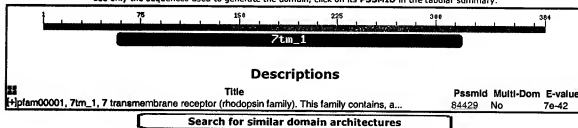


NewSearch | PubMed | Nucleotide | Protein | Structure | Taxonomy | Help

Query sequence: [(local sequence)|cl|16797]

☐ Concise Result ☒ Full Result ☐ Show Search Information

Click on the colored bar for a conserved domain to view your query sequence within the multiple sequence alignment for that domain. To see only the sequences used to generate the domain, click on its PSSMID in the tabular summary.



### CD Search Reference:

Marchler-Bauer A, Bryant SH (2004). "CD-Search: protein domain annotations on the fly.", *Nucleic Acids Res.*32(W):327-331.

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